

1           1. A computer-based method of processing a computer  
2        graphics illustration having pieces of artwork, the method  
3        comprising:

4                 mapping outlines of at least some of the pieces of  
5        artwork onto a grid of cells;

6                 determining a number of outlines of pieces of  
7        artwork that map to a cell of the grid; and

8                 identifying the cell as a complex region based on  
9        the determined number of outlines that map to the cell.

1           2. The method of claim 1, further comprising  
2        identifying artwork pieces to include in an illustration  
3        flattening process based on the identification of the  
4        complex region.

1           3. The method of claim 2 wherein an illustration  
2        flattening process comprises a process for producing a  
3        planar map from an illustration.

1           4. The method of claim 2 wherein identifying  
2        artwork comprises excluding artwork classified as entirely  
3        inside the complex region.

1           5. The method of claim 1 wherein mapping comprises  
2        drawing the outlines using a rasterization engine function.

1           6. The method of claim 1 wherein identifying  
2        comprises comparing the determined number of artwork pieces  
3        that enter a cell with a threshold.

1           7. The method of claim 6 wherein the threshold  
2        comprises a threshold based on user input.

1           8. The method of claim 6 wherein the threshold  
2 comprises a dynamically determined threshold.

1           9. The method of claim 1 wherein the illustration  
2 has a first associated resolution and the grid has a second  
3 resolution, the second resolution being less than the first  
4 resolution.

1           10. The method of claim 1 wherein the determining  
2 comprises determining using a rasterization engine function.

1           11. The method of claim 1 further comprising  
2 classifying artwork based on the intersection of the artwork  
3 with the complex regions.  
  
      52  
      53

1           12. The method of claim 11 wherein classifying  
2 comprises identifying artwork completely inside a complex  
3 region.

1           13. The method of claim 11 wherein classifying  
2 comprises identifying artwork completely outside a complex  
3 region.

1           14. The method of claim 11 wherein classifying  
2 comprises identifying artwork partially inside a complex  
3 region.

1           15. A computer program product, disposed on a  
2 computer readable medium, for processing a computer graphics  
3 illustration having pieces of artwork, the computer program  
4 comprising instructions for causing a process to:  
5           map outlines of at least some of the pieces of  
6 artwork onto a grid of cells;

7 determine a number of outlines of pieces of artwork  
8 that map to a cell of the grid;  
9 identify the cell as a complex region based on the  
10 determined number of outlines that map to the cell; and  
11 based on the identifying, excluding pieces of  
12 artwork from an illustration flattening process.

1               16. The computer program of claim 15 wherein  
2 excluding pieces of artwork comprises excluding pieces of  
3 artwork classified as entirely inside the complex region.

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